

## **MODS Productivity Data**

### **I. PREFACE**

#### **A. Purpose and Content**

USPS-FY15-23 provides FY2015 productivity data for selected operations at plants, Network Distribution Centers (NDCs, formerly Bulk Mail Centers or BMCs), and Remote Encoding Centers (RECs).

#### **B. Predecessor Documents**

Docket No. R2006-1, USPS-LR-L-56, Part III.  
Docket No. ACR2007, USPS-FY07-23.  
Docket No. ACR2008, USPS-FY08-23.  
Docket No. ACR2009, USPS-FY09-23.  
Docket No. ACR2010, USPS-FY10-23.  
Docket No. ACR2011, USPS-FY11-23.  
Docket No. ACR2012, USPS-FY12-23.  
Docket No. ACR2013, USPS-FY13-23.  
Docket No. ACR2014, USPS-FY14-23.

#### **C. Corresponding Non-Public Document**

There is no corresponding non-public document.

#### **D. Methodology**

The productivities for plant and NDC operations employ data from the Management Operating Data System (MODS). The calculations follow the methodology from Docket No. R2006-1, USPS-LR-L-56, Part III, as modified in Docket No. RM2012-2, Proposals Sixteen and Seventeen (approved in Commission Order No. 1383) and Docket No. RM2014-1, Proposal Eight (approved in part in Commission Order No. 1877).

Productivities for Remote Encoding Center (REC) operations are based on image volumes and console hours from the WebROADS system, adjusted for "overhead" workhours included in the MODS workhour total.

#### **E. Input/Output**

The productivity data are used in USPS-FY15-10, USPS-FY15-11, and USPS-FY15-15. Additionally, the console hours used to develop the REC productivities are used in USPS-FY15-7 (and USPS-FY15-NP18) to assign LDC 15 REC labor costs to cost pools.

## II. ORGANIZATION

The productivity data are presented in the Microsoft Office Excel workbooks 'YRscrub2015.xlsx', 'NDCscrub2015.xlsx', 'RECProds2015.xlsx'.

**Table 1. MODS Productivities for Selected Plant Operations**

<b>Group</b>	<b>Description</b>	<b>Shape</b>	<b>TPF/Hour</b>	<b>TPH/TPF</b>
4	LCREM	Letters	2,229	1.000
5	Tray Sortation Outgoing	Letters	115	0.896
6	Tray Sortation Incoming	Letters	100	0.908
7	Out BCS Primary	Letters	8,042	0.970
8	Out BCS Secondary	Letters	9,910	0.979
9	In BCS MMP	Letters	5,193	0.979
10	In BCS SCF/Primary	Letters	5,839	0.978
11	In BCS Secondary (1 Pass)	Letters	7,380	0.974
12	In BCS Secondary (2 Pass)	Letters	9,065	0.990
14	Manual Out Primary	Letters	614	1.000
15	Manual Out Secondary	Letters	1,058	1.000
16	Manual In MMP	Letters	1,180	1.000
17	Manual In SCF/Primary	Letters	1,076	1.000
18	Manual In Secondary	Letters	792	1.000
21	AFSM100 Out Primary	Flats	1,281	0.968
22	AFSM100 Out Secondary	Flats	2,202	0.967
23	AFSM100 In MMP	Flats	1,263	0.977
24	AFSM100 In SCF	Flats	1,670	0.979
25	AFSM100 In Primary	Flats	959	0.975
26	AFSM100 In Secondary	Flats	1,632	0.978
27	AFSM100 ATHS Out Primary	Flats	1,674	0.970
28	AFSM100 ATHS Out Secondary	Flats	1,161	0.969
29	AFSM100 ATHS In MMP	Flats	1,737	0.979
30	AFSM100 ATHS In SCF	Flats	1,548	0.979
31	AFSM100 ATHS In Primary	Flats	1,200	0.977
32	AFSM100 ATHS In Secondary	Flats	1,854	0.978
33	AFSM100 AI Out Primary	Flats	1,936	0.965
34	AFSM100 AI Out Secondary	Flats	2,242	0.974
35	AFSM100 AI In MMP	Flats	1,946	0.976
36	AFSM100 AI In SCF	Flats	2,023	0.975
37	AFSM100 AI In Primary	Flats	1,666	0.969
38	AFSM100 AI In Secondary	Flats	2,436	0.978
39	AFSM100 ATHS/AI Out Primary	Flats	3,817	0.961
40	AFSM100 ATHS/AI Out Secondary	Flats	4,460	0.966
41	AFSM100 ATHS/AI In MMP	Flats	4,132	0.973
42	AFSM100 ATHS/AI In SCF	Flats	3,927	0.973
43	AFSM100 ATHS/AI In Primary	Flats	4,166	0.967
44	AFSM100 ATHS/AI In Secondary	Flats	4,414	0.972
45	UFSM1000 Outgoing	Flats	1,170	0.846

46	UFSM1000 Incoming	Flats	1,797	0.927
57	Manual Out Primary	Flats	600	1.000
58	Manual Out Secondary	Flats	475	1.000
59	Manual In MMP	Flats	671	1.000
60	Manual In SCF	Flats	581	1.000
61	Manual In Primary	Flats	729	1.000
62	Manual In Secondary	Flats	241	1.000
63	Manual In	Parcels	293	1.000
64	APBS Outgoing	Parcels	314	0.911
65	APBS Incoming	Parcels	205	0.897
67	LIPS Incoming	Parcels	313	1.000
68	APPS Outgoing	Parcels	536	0.880
69	APPS Incoming	Parcels	304	0.887
70	Manual Outgoing	Parcels	233	1.000
75	PARS WASTE MAIL	Letters	2,694	1.000
76	PARS MANUAL DISTRIBUTION	Letters	2,544	1.000
77	CIOSS RTS IMAGE LIFT MODE	Letters	6,460	0.963
78	CIOSS INTERCEPT LABEL MODE	Letters	7,147	0.916
79	CIOSS FORWARDS IMAGE LIFT MODE	Letters	7,030	0.986
80	CIOSS REVERSE SIDE SCAN	Letters	6,049	0.903
81	CIOSS RESCAN MODE	Letters	5,121	0.986
82	CIOSS OTHER MODE	Letters	3,700	0.970
83	CIOSS INTERCEPT IMAGE LIFT MODE	Letters	3,363	0.986
84	CIOSS FORWARDS LABEL MODE	Letters	6,562	0.898
85	CIOSS RTS LABEL MODE	Letters	7,514	0.830
86	FSS	Flats	797	0.893

Source: USPS-FY15-23, YRscrub2015.xlsx

**Table 2. MODS Productivities for Selected NDC Operation Groups**

<b>Group</b>	<b>Total TPF</b>	<b>Total TPH</b>	<b>Total Hours</b>	<b>TPF/Hour</b>
PPSM	284,043,316	272,883,018	780,410	364
SPSM	777,589,609	743,413,119	2,746,200	283
SSM	28,729,562	25,694,385	316,376	91
NMO/Manual Parcels	37,276,050	37,142,906	562,737	66
Outgoing Pouching	44,088,727	44,088,727	145,776	302

**Source: USPS-FY15-23, NDCscrub2015.xlsx**

**Table 3. Remote Encoding Center Productivities**

<b>Product</b>	<b>Images Keyed</b>	<b>Console Hours</b>	<b>Productivity (images per console hour)</b>	<b>Productivity Adjusted for Overhead</b>
APPS	672,319,460	909,916	739	649
Flats	232,932,296	273,286	852	749
Letters	172,866,905	183,679	941	827
COA	30,111,635	202,449	149	131
PARS	761,514,134	628,307	1,212	1,065
<b>Total</b>	<b>1,869,744,430</b>	<b>2,197,638</b>	<b>851</b>	<b>747</b>

**Source: USPS-FY15-23, RECprods2015.xlsx**

### III. PROGRAM DOCUMENTATION

#### A. Mail Processing Plant Productivities

Program: **modsprod\_fy15.do** – Stata program that computes plant productivity statistics reported in YRscrub2015.xlsx.

First, the MODS data are merged with datasets indicating assignments of 3-digit MODS operations to operation groups, and identifying the MODS facilities and NDCs whose data are used in the productivity calculations. TACS default operations are screened prior to further aggregation.<sup>1</sup> The 3-digit operation-level data are summed (collapsed) to operation group. The TPF variable is replaced with TPH in cases where TPH is greater than TPF, which serves to transfer manual TPH into the TPF variable.<sup>2</sup> Subsequent calculations employ TPF for all operation groups.

The observation-level productivity (prod1) is calculated as the ratio of TPF to workhours by site, operation group, and month. Observations with zero workhours and/or TPF are eliminated by dropping observations with zero or missing values of prod1. The first and 99th percentiles of the productivity distributions for each operation group are computed, and observations in the top and bottom one percent tails of the productivity distributions are eliminated as outliers. Finally, the program computes group sums of TPF, TPH, and workhours over observations remaining after the screening steps. The productivity is the ratio of the sum of screened TPF to the sum of screened workhours. An Excel output file is created for subsequent importation into the YRscrub2015.xls Excel spreadsheet.

Productivities for groups 3, 20, 73, and 74 (REC productivities) are obtained from REC operating data reported in the WebROADS system, and thus are not reported in the spreadsheet; see Section C, below.

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<sup>1</sup> TACS designates certain 3-digit operation numbers as default operations. These operations accumulate workhours in operations where the designated activity may not actually be present, and the workhours assigned to the affected operations 'by default' tend to be large relative to the 'true' data. Prescreening reduces the potential for the default workhours to bias the affected productivities downward.

<sup>2</sup> For manual operations, MODS reports zero TPF for all observations. Historically, TPH values greater than TPF were relatively rare anomalies in MODS data for automated operations. (Since TPH is defined as TPF less rejects, TPF should always be at least as great as TPH.) Automated entry of end-of-run data into MODS via WebEOR effectively eliminated these anomalies.

Input: **opmap15.xlsx** - Map of MODS operations to operation groups used in the productivity analysis, in Excel workbook  
**finlist15.xlsx** – Map of finance numbers to site IDs used in the productivity analysis  
**ndc\_fins14.dta** – Stata dataset with list of NDC and ASF finance numbers (unchanged from FY2014)  
**MODS\_MONTH\_FY15.csv** - Monthly FY 2015 MODS TPF, TPH, and workhour data by month, finance number, and operation, as comma-separated text file

Output: **mods2015prod\_merged.dta** – Stata dataset (by operation, month, and finance number) merging FY 2015 MODS data, operation-to-group, and finance number maps  
**mods2015prod\_prescreen.dta** – Stata dataset containing FY 2015 MODS data by site ID, month and operation prior to screening, for operations included in the productivity groups  
**MODSprod2015.xlsx** – Excel workbook with FY2015 screened TPH, TPF, hours, productivity (TPF/hour) and TPH/TPF ratios, by operation group; YRscrub2015.xlsx reformats these data.

## B. NDC Productivities

Program: **ndcprod\_fy15.do** – Stata program that computes productivity statistics, reported in NDCscrub2015.xlsx, for the following operation groups: PPSM, SPSM, SSM, NMO/Manual Parcels, and Outgoing Pouching.

The data processing procedures for the NDC operation groups are substantially identical to those described above for program **modsprod\_fy15.do**.

Input: **mods2015prod\_merged.dta** – Stata dataset of MODS data, produced in **modsprod\_fy15.do** (see above)

Output: **ndc2015prod\_prescreen.dta** - Stata dataset containing FY 2015 data by site ID, month and operation group prior to screening  
**NDCprod2015.xlsx** - Excel workbook with FY2015 screened TPH, TPF, hours, productivity (TPF/hour) and TPH/TPF ratios, by operation group; YRscrub2015.xlsx reformats these data.

### C. REC Productivities

Spreadsheet: **RECprods2013.xls** – Excel spreadsheet containing Remote Encoding Center (REC) productivities for APPS, Flat, Letter, COA, and PARS images for GFY 2013. Productivities calculated from WebROADS images and console hours are adjusted for overhead (e.g., on-the-clock breaks) using MODS hours.